

WHAT IS CLAIMED IS:

1. An image sensing apparatus comprising:

an image sensing device having a plurality of pixels;

5 an optical element array having a plurality of optical elements made to correspond one by one to each set of a plurality number of pixels of a plurality of pixels of said image sensing device; and

a focusing device which generates, for each of
10 the plurality of optical elements, one pair of focus detection signals in the pixels from light passing through the optical element, and performs focusing operation on the basis of focus detection signals generated in pairs for each of the optical elements.

15 2. The apparatus according to claim 1, wherein image signals are generated in the pixels from light passing through gaps between the plurality of optical elements of said optical element array.

3. The apparatus according to claim 1, wherein the
20 optical element comprises a re-imaging optical system.

4. The apparatus according to claim 1, further comprising a switching device which switches between a first state in which light is received by said image sensing device without through said optical element
25 array and a second state in which light is received by said image sensing device through said optical element array.

5. The apparatus according to claim 1, wherein the focusing operation is performed by using signals generated by concatenating the focus detection signals obtained from a plurality of pixels, of the plurality of pixels of said image sensing device, which are arranged discretely.